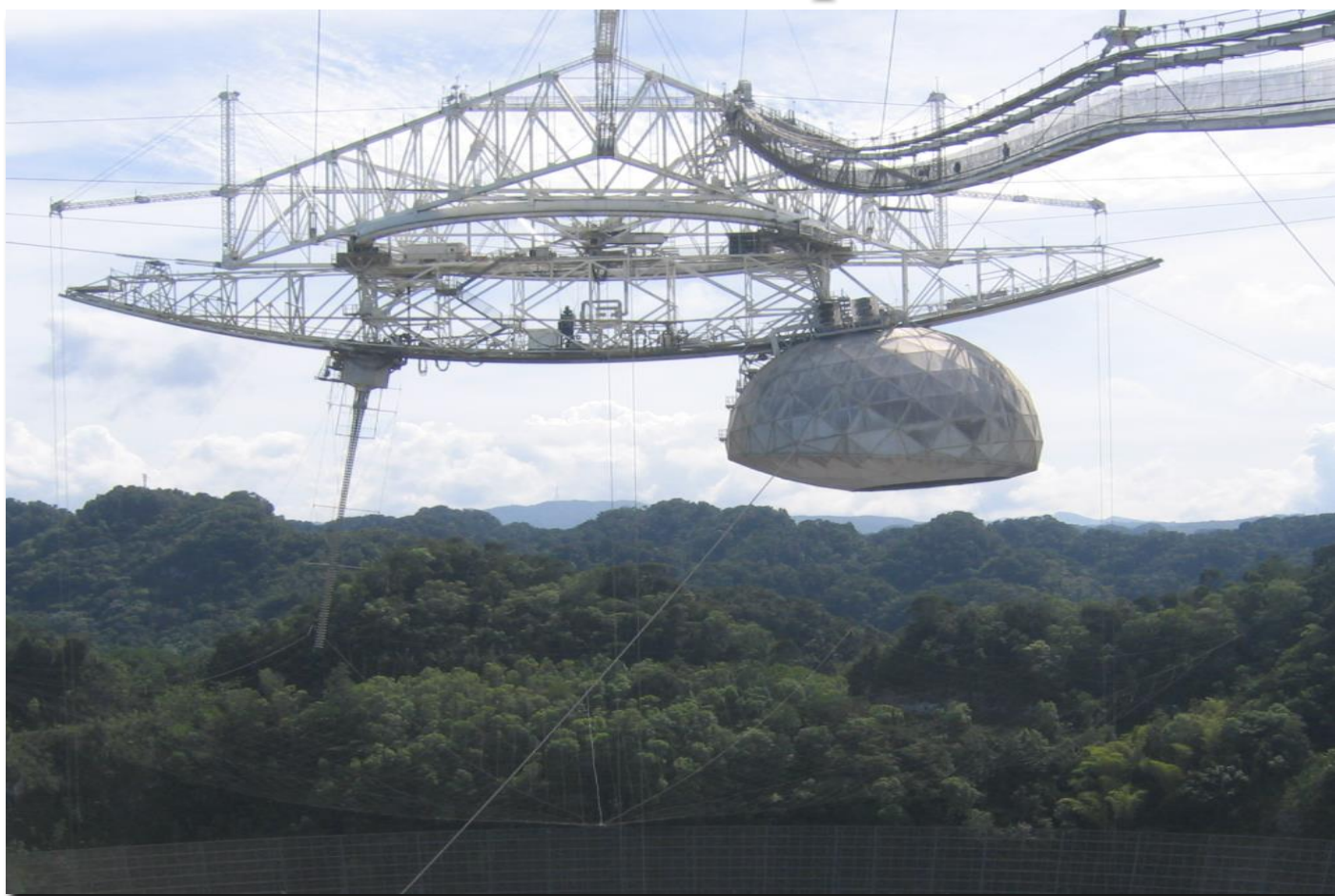


BARG Newsletter September 2024



Ballarat Amateur Radio Group Inc. #6953T

September 2024 Monthly Newsletter



Next General Meeting BARG inc
11:00am, Saturday 28th September 2024
At the Airport - All Welcome

Contacting us

BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>

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Cover Photograph, Paul VK3TXR, from a visit to the Arecibo Observatory, Puerto Rico

Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM
with a 91.5 tone - VK3RWU

LINKED REPEATERS: *The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.*

Access details for this repeater have recently changed.

*For full details of this linked network and access details
see <https://www.qrz.com/lookup/vk3rba>*

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503.

The 50-50-90 rule: Anytime you have a 50/50 chance of getting something right, there's a 90% probability you'll get it wrong.

"Doctor, there's a patient on Line 1 who says he's invisible."

"Well, tell him I can't see him right now."



President's Report September 2024



There is a Bunnings BBQ fundraiser for the club on the 9th of November. We need members to help with this please add your availability via the Members Area on the club website.

Hamvention is on the Sunday the Second of February. As we had a few issues last year with some members claiming that they should be able to get in for free. A reminder of sorts, the only way a club member can get into the Hamvention for free is to donate some time to the setup on Saturday afternoon and the pack up on Sunday afternoon.

The form to let the organisers know of your availability should be available soon in the Members Area of the Club website.

Note that this is for financial and life club members only.

Till next month when hopefully I can write a better report...

Ben VK3NRD.



**Ballarat Amateur Radio Group Inc.
(BARG)**

HAMVENTION

Sunday February 2 2025

At the Ballarat Polo-Crosse Club's
Facility, Ballarat Airport

Display and Sales (setup from 8am on the day)

Trade Table \$20.00 includes one admission,
(Space for 70+ tables, this is a big one!)

General Admission \$ 7.00 (accompanied under 15 free)

STRICTLY 10:00 AM START

Food and drink will be available

Enquiries and up to date details: BARG on the web
www.barg.org.au

The Next BARG General Meeting
Following the AGM, Saturday 28th of
September 2024

No BARG Construction Day
has been scheduled for September due to the
condition of the rooms after the breakin.

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Ian Fairweather VK3YFD
Secretary	Peter Westgarth VK3APW	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Mal White VK3OAK
Ordinary Member	Paul Black VK3TXR		



Bunnings
Sausage Sizzle

BARG will hold another sausage sizzle on
Saturday 9th November 2024. Bunnings Delacombe.

We need helpers to commit a few hours on the day.

The more we get to help, the less time everyone needs to participate.



If people can add into
the diary, it will be appreciated.

To register your help on the day, let us know here;

https://docs.google.com/forms/d/e/1FAIpQLScArjhVocQhI82N7vkYRXT6hYITJbErHx_Sox_AydlwLDnPDw/viewform

BC611 Walkie-Talkie

Contributors Gary VK3NN, Tom VK3DMK

For all our readers who remember the TV WW2 series “Combat”, a particular type of communication device appeared quite regularly on your screen. Either in a trench or observing from bushes.

The device was the BC611 or SCR536 Walkie-Talkie.

Gary VK3NN bought a fine example into our Thursday Coffee Morning, and we had a look and feel of these iconic communicators.

Weighing 2.5kg (5.5lbs) they were not as handy as their modern counterparts.

At the time, there was no other radio “designed for operation under battle conditions,” according to its technical manual.

Manufactured from 1941 to 1956 it eventually came in five variants, A to E models.

A valve-based hand-held two-way radio transceiver, developed in 1940 by Don Mitchell at Galvin Manufacturing (now Motorola) for the US Army. By the end of WWII over 130,000 of them had been made.

The handheld radio set first saw action in the Allied invasion of North Africa in November 1942.

Designed for short range, 100ft to 1 mile, operation the radio consisted of a 5-valve lineup with two batteries, LT: 2 × BA-37 (1.5V) and HT: 1 × BA-38 (103.5V).

Output power from the crystal-controlled transmitter was 360mW and it operated in the 80M band. Battery life was quoted at 1 day, approx. 19 hours depending on use.

The 39 inch (1 metre) telescopic antenna fits neatly inside the case and has a screw on cover to protect the tip when stowed away.

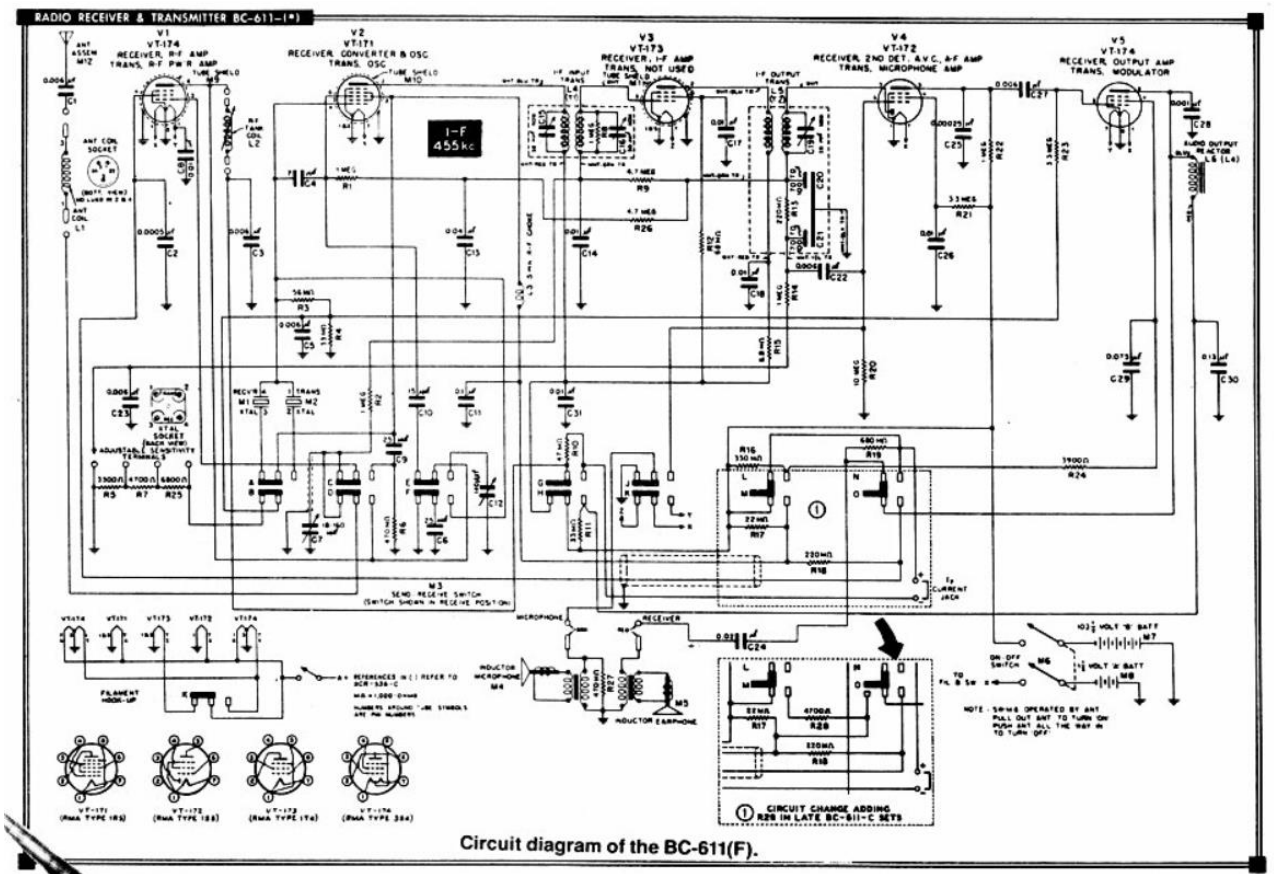
Single channel crystal control and few simple controls made the unit easy to learn and operate in the field.

The set was extremely easy to operate. To turn the set on, all the operator had to do was to pull out the antenna, which triggered the on/off switch. The press to talk button is the only other control, the volume being pre-set and unalterable by the operator.

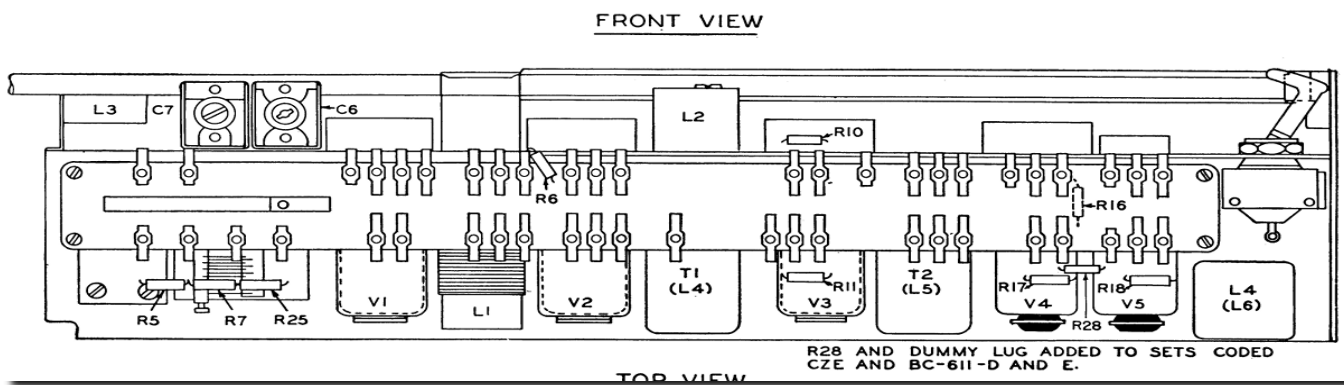
The valve line up was;

3S4	VT174	RF Amplifier
1R5	VT171	Converter
IT4	VT173	IF Amplifier
1S5	VT172	Detector, AVC, 1 st Audio
3S4	VT174	Audio Power Amplifier





The construction of the 5-valve transceiver was very compact with a sliding strip running along the length of the assembly acting as the PTT, contacts, spring and a hole for the PTT button to connect to positioned along its edge.



The radio actually only occupied half the case, the other half by the specially manufactured batteries for HT and filaments.

Its legacy continues as one of the predecessors to modern portable radios used by military and civilian forces alike.

<https://www.cryptomuseum.com/radio/bc611/>
<https://www.awm.gov.au/collection/C1236904>
<https://en.wikipedia.org/wiki/SCR-536>
<https://www.californiahistoricalradio.com/wp-content/uploads/2011/11/CHRSHandyTalkieBC611.pdf>



My Shack VK3PDR



My humble operating set up at the moment. Starting point of a fresh set up.

HF TenTec Argonaut 509. QRP unit 3w 1973-197*.
2m Kenwood TR751A multimode and UV5R handheld.
70cm Leixen VV898 25W FM and UV5R has 70cm as well.



Power supply

Just for now a car battery with 240w solar attached and a buck converter for trickle overnight.



Antennas are ;

HF Fan dipole at about 7m, on 40m,20m,15m,10m
HF Random wire of about 15m at roof height.
2m homebrew wire Jpole on 2m (still in fine tuning and set up)



Despite old gear I have been able to operate SSB hf and a US contact on FT8 using the microphone manually (loads of fun lol) 20m
Regards David VK3PDR

A Reminder for the Annual Moonambel Gathering

Contributor Robert VK3ARM

A reminder that the annual Moonambel Gathering for anyone interested in HF Radio runs over the weekend of 19th and 20th October. The event was traditionally open to those who use commercial HF radios and over the years has become a social get together.

In order to keep the event alive and well, we've opened it up to the Amateur Radio community, especially given the number of suitable parks and reserves within a half hour drive from Moonambel. Not sure of the cost to camp in the reserve this year. It was \$10 a night last year without power, \$15 a night with power (on a first in, best dressed basis for power). Bring your own everything. Plenty of trees to hang wire antennas off.

Help us to keep the event alive, meet new people and spread the joy of Amateur Radio.

You can contact Stuart Boden on 0439 550 167, Robert (VK3ARM) QTHR or just rock up. People start arriving from Friday. You could also just travel up for a day if you don't want to camp.



I just asked my husband if he remembers what today is.
Call me playful but scaring men is so easy.

Time may be a great healer but it's a lousy beautician.

Don't you hate it when someone answers their own questions? I do.

Plan ahead. It wasn't raining when Noah built the ark.

BARG Members Club Dining Events

There are two monthly social events planned.

The ladies' morning coffee is planned for the first Tuesday morning of each month at 10:00am at **Live it Up**.

Greenhill Enterprise Centre, University Drive, Mt Helen

The dining day/night events are held on the 3rd Friday of each month at locations to be announced.

Daytime events will occur 3rd Saturday of each month at midday.

Notices will be sent out as a reminder to get numbers etc prior to booking each dinner.

Cheers. Ian VK3AXH

BARG Coffee Mornings

Come out for a chat, coffee, snack, and solve the world's problems, all in a morning.

Every Thursday Morning at 10:00 am

Food Seduction on Doveton

524 Doveton St Nth

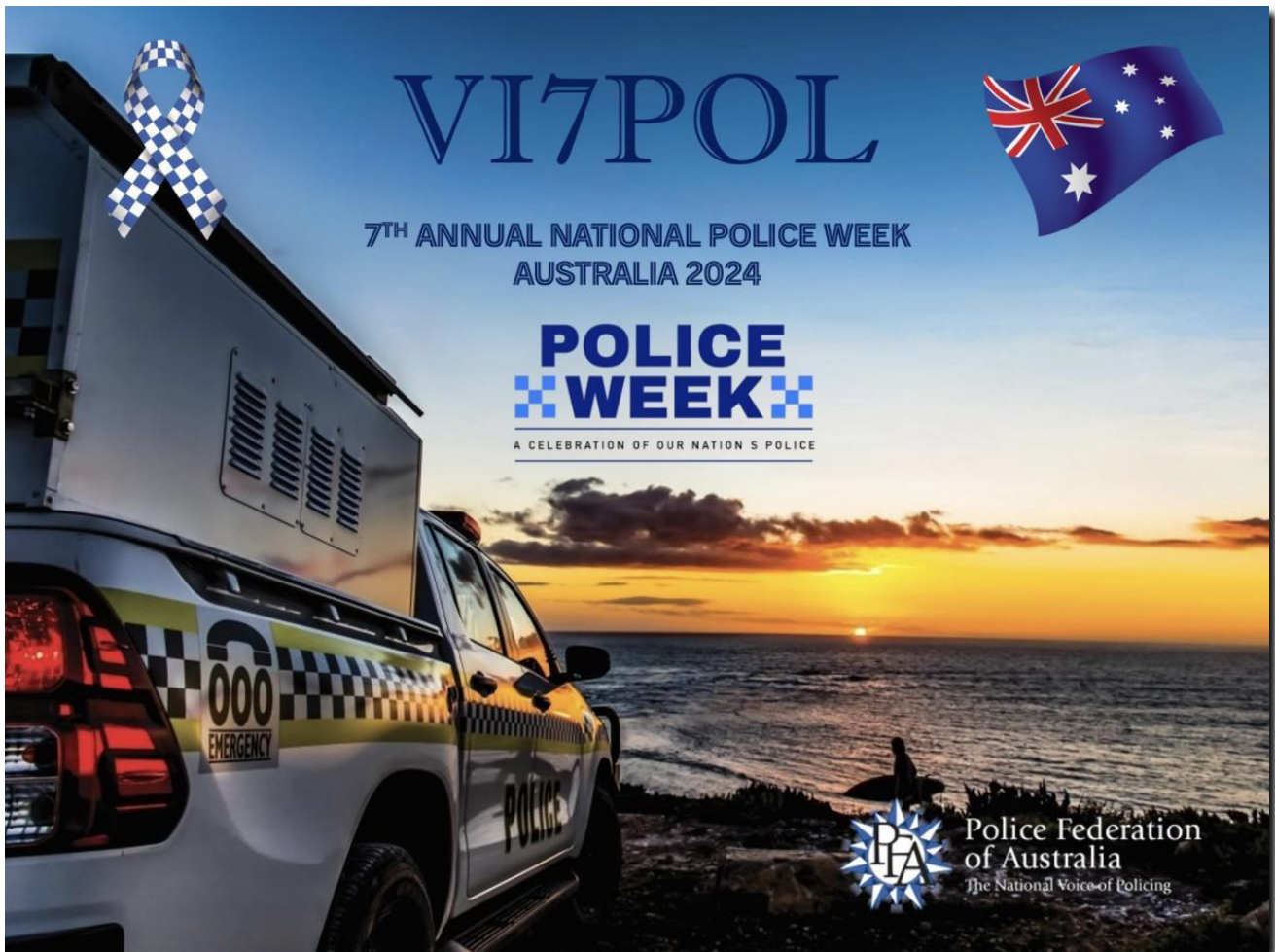
Soldiers Hill

(The old Gove Bike Shop)

YOU MAY HAVE NOTICED OVER THE LAST COUPLE OF NEWSLETTERS, I HAVE USED SOME MEMBERS' PHOTOGRAPHS ON THE FRONT PAGE. I HOPE TO CONTINUE THIS THEME BUT NEED HELP FROM READERS TO SUPPLY IMAGES EVEN REMOTELCONNECTED WITH AMATEUR RADIO/ELECTRONICS.

VI7POL NATIONAL POLICE WEEK

Paul, VK5PAS will be active using special call sign VI7POL from Mount Barker, South Australia, Australia, **14 - 29 September 2024**, celebrate the 7th annual National Police Week in Australia.



Paul will operate on HF Bands.

QSL via home call bureau or direct, LOTW, eQSL.

Address for direct QSL:

Mr. Paul Simmonds,

PO Box 169,

Mount Barker,

South Australia, 5251, Australia.

Information from his QRZ page:

Police Week 2024 will be held across Australia from Saturday 14th September with the 15th annual Wall to Wall Ride for Remembrance and will conclude on Sunday 29th September, National Police Remembrance Day.

Police Week is a celebration of our nation's police. National Police Remembrance Day is a time to pause to honour the 826 Australian police officers whose lives have been lost while performing their duty. It is also a time to remember police officers who have lost their lives through illness or other circumstances.

<https://dxnews.com/forum/forum/special-event-stations/60348-vi7pol-national-police-week/>

50 Years of G-QRP



In the October 1974 edition of Short-Wave Magazine, there was a small item suggesting that some form of UK QRP Club should be set up. The Reverend George Dobbs, G3RJV, indicated that he “*would be prepared to do the donkey-work to get the Club off the ground*”. He did and in September 2024 the Club celebrates its 50-year anniversary.

The anniversary will be marked at the Club’s annual Convention, held in

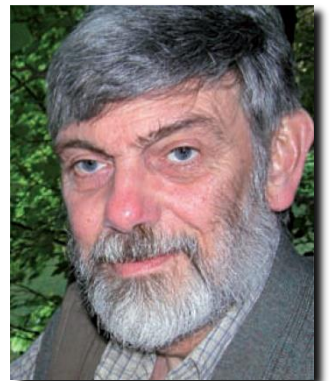
conjunction with the Telford Hamfest, over the weekend of 31 August and 1 September.

A special anniversary SPRAT magazine is being prepared, which will bring together some of George’s writings from Shortwave Magazine and Practical Wireless, and there will be a new RSGB book available showcasing the best of 50 years of SPRAT.

Following the Convention, the Club are running an activity period throughout September called ‘Low and Clear’. A number of QRP stations are being activated across the UK and in other countries, with ‘LOW’ or ‘QRP’ in their special callsigns. Stations working a number of them will receive a certificate, and the ‘best’ logs will be awarded prizes, which have been donated by traders who advertise in the Club’s journal SPRAT. Again, details can be found on the Club’s website.

There is also a new RSGB Book celebrating 50 years of QRP. Details of that are in the current RadCom.

The Club has around four thousand paid up members and has produced two hundred editions of SPRAT, its quarterly journal. In addition to SPRAT, the Club has a YouTube channel with recordings of some excellent presentations from its annual Conventions, and a website with lots of technical information, as well as details of the Club, its awards and trophy winners and a news page. Information on how to join the G-QRP Club can be found at <https://www.gqrp.com/join.htm>



Some callsigns to look out for;

G5LOW, GM5LOW, GW5LOW, Gi5LOW, GD5LOW, GJ5LOW, GU5LO
OE50LOW, OH50LOW, TM50LOW, DM50LOW, IR3QRP, YP50QRP, EG5LOW
73, Steve, G0FUW.

<https://www.gqrp.com/>

2024 Annual VKFF National Get Together



2024 ANNUAL VKFF NATIONAL GET TOGETHER

FRIDAY 25TH, SATURDAY 26TH & SUNDAY 27TH OCTOBER 2024

AT BENDIGO, VICTORIA.

THE EVENT WILL INCLUDE:

- ◇ FRIDAY EVENING DINNER AT THE HOTEL SHAMROCK.
- ◇ GUEST SPEAKERS & DISPLAYS ON VKFF/WWFF DURING THE DAY ON SATURDAY AT THE LAKESIDE HOTEL.
- ◇ RAFFLE WITH VARIOUS PRIZES
- ◇ SATURDAY EVENING DINNER FUNCTION AT THE LAKESIDE HOTEL, INCLUDING A GUEST SPEAKER
- ◇ SUNDAY MORNING BBQ BREAKFAST HOSTED BY BAREC, HELD AT THEIR CLUBROOMS.
- ◇ THIS WILL BE FOLLOWED BY NUMEROUS VKFF PARK ACTIVATIONS ON SUNDAY.

FORMAL REGISTRATON, COST AND ADDITIONAL INFORMATION CAN BE FOUND ON THE WWFF AUSTRALIA WEBSITE AT.....

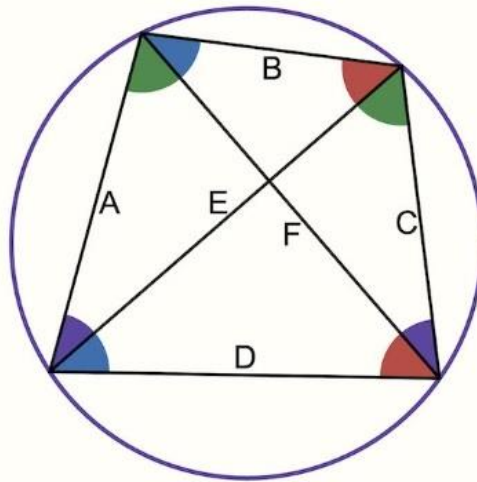
<https://www.wwffaustralia.com/2024-vkff-national-get-together.html>



Musings from the Doc

Contributor John VK3CFH, Tom VK3DMK

Ptolemy's Theorem



$$AC + BD = EF$$

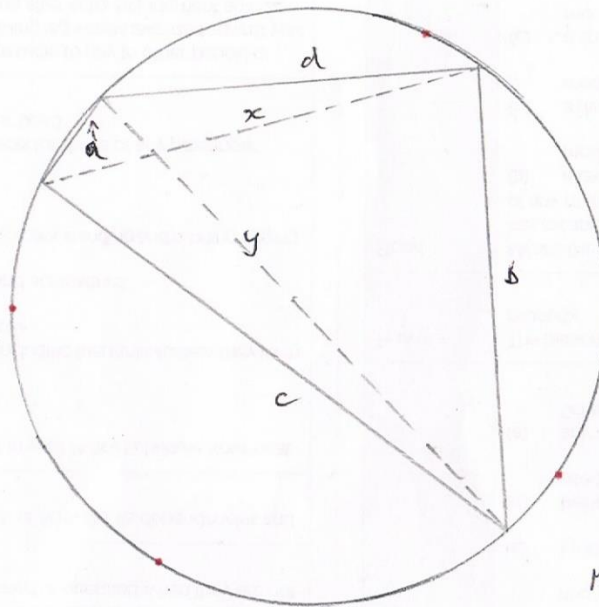
Claudius Ptolemy of Alexandria (~100-168) was a Greek mathematician, astronomer, astrologer, musician and geographer who put forward a theorem that;

Let a convex quadrilateral ABCD be inscribed in a circle. Then the sum of the products of the two pairs of opposite sides equals the product of its two diagonals

1100
All 4 vertices touching circle

$$\rightarrow ab + cd = xy$$

$$\begin{array}{r} 4650 \\ 3080 \neq 7730 \\ \hline 7830 \times \\ \text{in mms.} \end{array}$$



WAS IT
CLAUDIUS PTOLMAEUS?
(2nd C. AD)

THEORY OF EARTH
CENTRED UNIVERSE
(WRONG!!)
CORRECTED BY
COPENICUS 16 CENT!!

DOC MUSINGS
FINDS ALL THIS
VERY INTERESTING

MEASURE - IT WORKS,
OR NOT QUITE! ?

I FOUND 20+ PTOLMYS IN ENCYCLOPEDIA BRITANNICA.

Above is a back of the Doc's envelope test of the theory, try it if you like.

JPC-12 Antenna Tuning Suggestions

(Text Extracted and Cleaned Up From a YouTube Video)

Contributor Robert Vk3ARM

From bottom, assemble earth stake, ground radials, SO-239 Base, 4 aluminium rods, tuning coil and whip.

NOTE: Improve the Ground Radials. More radials equals better performance.



- 40 METRES – Extend the whip completely. Set tuning coil at lower red mark. Adjust it a bit either way. 1.1 to 1.4 is possible.
- 30 METRES –Extend the whip completely. Set tuning coil around 8 clicks below top red mark. 1.1 to 1.5 is possible.
- 20 METRES –
Extend whip completely. Set tuning coil to top red mark + or – a bit. 1.1 to 1.4 is possible.

REMOVE TUNING COIL FOR HIGHER BANDS. ADJUST ANTENNA FOR ¼ WAVELENGTH.

- 17 METRES –
With tuning coil removed, extend whip completely then make fine adjustments with the whip. 1.2 to 1.7 is possible.
- 15 METRES (1) –Lower whip one section. Make small adjustments. 1.2 to 1.5 is possible.
- 15 METRES (2) –Only **THREE** aluminium rods. Fully extend whip. Make small adjustments. 1.2 to 1.5 is possible.
- 12 METRES –Only **TWO** aluminium rods. Fully extend whip. Make small adjustments. 1.2 to 1.7 is possible.

OR keep **THREE** aluminium rods and shorten the whip.

REMOVE ALL ALUMINIUM RODS:

- 10 METRES –Adjust whip for ¼ Wavelength on 10, mounted on top of SO-239 Base. Make small adjustments. 1.2 to 1.5 is possible.
- 6 METRES – Whip ¼ Wavelength on 6. Make small adjustments. 1.2 to 1.7 is possible.

Cheers Robert Vk3ARM



2024 Remembrance Day Memorial Report

SINGLE OP PHONE						Remembrance Day 2024 Results			
Callsign	Points	Callsign	Points	Callsign	Points	Callsign	Points	Callsign	Points
VK7ZBX	1118	VK3APJ	120	VK6WK	38	SINGLE OP MIXED		SINGLE OP CW	
VK2EFM	1053	VK5Y	115	VK6KQ	34				
VK7OO	938	VK2GRH	114	VK6ZMS	32	Callsign	Points	Callsign	Points
VK7ZMS	782	VK5UW	107	VK5SPJ	32	VK7TW	1298	VK2GR	306
VK3OAK	549	VK7ACE	103	VK2KDX	31	VK7ID	833	VK4JJ	192
VK2YI	529	VK3CWS	98	VK6DEV	31	VK2PW	774	VK2EZF	172
VJ3G	511	VK2DWP	97	VK2XGB	30	VK5T	723	VK1PWE	152
VK7BW	455	VK7SRH	94	VK6WU	29	VK7DW	705	VJ3W	124
VK2YQ	442	VK3ASU	94	VK5DJ	29	VK6RC	491	VK2BHO	86
VK7HH	421	VK6AB	93	VK3EST	28	VK4M	441	VK1RF	44
VK2FO	420	VK3LF	92	VK3JWT	28	VK7PD	427	VK2TIG	44
VK7C	412	VK5ZTJ	91	VK5ZKJ	28	VK2DG	402	VK3GF	38
VK2TTL	363	VK3AMW	89	VK1MST	27	VK7TO	389	VK2EAH	36
VK3ABK	354	VK7EV	84	VK3V	25	VL5L	311	VK4DRK	28
VK7WRC	344	VK6MM	79	VK4IZK	19	VK6DDX	288	VK7IF	8
VK3TZT	294	VK7BEN	74	VK6LG	19	VK7GN	273	MULTI-SINGLE	
VK7ZLB	285	VK4IKZ	72	VK7XR	15	VK7MAT	242		
VK7ZTA	275	VK2JEH	72	VK7KK	15	VK5LJ	231	Callsign	Points
VK7JN	269	VK6EZ	70	VK3EH	13	VK5D	221	VK7CMS	616
VK2WW	265	VK5BC	64	VK3HAG	11	VK2YW	203	VK4BA	342
VK3GC	260	VK1SPB	61	ZL4KYH	10	VK3KTT	168	VK3SCS	239
VK6Y	259	VK3D	60	VK6TKR	10	VK6DW	140	VK5ARC	181
VK7HXT	227	VK6TCP	59	VK3MCG	10	VK6NU	136	VK3BML	177
VK7XTC	225	VK5WX	59	VK7AD	9	VK3DL	125	VK2KHA	52
VK6VP	214	VK5BE	58	ZL2EF	9	VJ3U	115	VK6CNL	23
VK7HW	211	VK6EK	57	VK2MJC	8	VK6GC	101	MULTI-MULTI	
VK7WN	202	ZL/VE6TC	56	VK7HSE	7	VK3MLT	83		
VK7JZ	199	VK3HAU	56	VK2OX	7	VK3ALF	73	Callsign	Points
VK7KDV	197	VK2KQB	52	VK4IY	6	VK5FD	71	VL4R	959
VK3LSR	196	VK5PX	51	VK7KWB	4	VK6AKR	54	VL5X	562
VK7QP	196	VK3ZS	51	ZL4RO	4	VK6KV	45	VK6AHR	431
VK6ZRW	194	VK3GZY	50	VK6KMS	3	VK3BAP	43	VK2AWX	361
ZL4UC	186	VK7VH	49	VK5IU	2	VK3TBR	14	VK5BWR	298
VK2TS	185	VK7KC	49	QRP PHONE		QRP CW		VK6CLL	209
VK5DT	176	VK6COL	46	Callsign	Points	Callsign	Points	VK6N	177
VK7AAE	175	VK3ABV	46	VK3KK	211	VK3ACU	250	VK8DA	114
VK6V	168	VK7NB	46	VK5FBIC	137	VK7WW	172	VK5ARA	82
VK4YT	158	VK6HRC	46	VK6DTK	104	QRP MIXED		Check log	
VK6WR	156	VK4KDF	42	VK3TUN	100				
VK3PCC	155	ZL3GAV	41	VK1CHW	84	Callsign	Points	Nil	
VK3JK	152	VK4FLR	40	VK1MF	48	VK2R	141		
VK6JEF	151	ZL3YB	40	VK6WHO	41	VK4JM	95		
VK4DNO	140	VK4VAW	40	VK7XT	11	VK4PDG	18		
VK3LM	137	VK7KW	39	VK3DMA	1				
VK3TCM	132	VK7LH	38						

Magazine Reviews

QST Magazine August 2024

P4 Main index

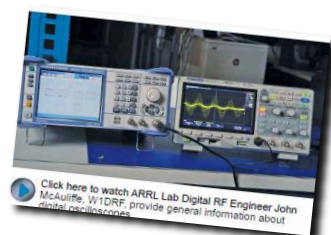
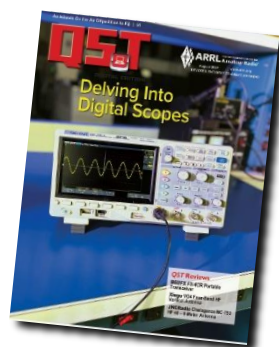
P9 Second Century. By NA2AA ARRL CEO. Looking at way the exams used to be held in the past by candidate travelling to the nearest state office of the FCC, sit the exam and return home knowing the new exam would be arriving at home in next month or two. Basically, the same applied to our Australian system but our exams held every three months in a large venue but a similar wait for results to arrive home. If you failed one of the two papers {involved <Theory, Regulations and/or Morse receive and transmit at the required speed.} Now with some 30,000 volunteer examiners in the US its more favourable towards the candidate who can sit the exam in a one-to-one basis the same as in Oz now. The ARRL looking to future trends to assist clubs to get grants to further aims of club and benefit the members. Sounds as if we are treading the same pathway here. David NA2AA points out that "THE FCC REQUIRES PAYMENT FOR LICENCES. He doesn't explain whether that is to issue a licence or for the FCC to administer the exam to a candidate. ?? Australia have just dropped the need for a licence fee {after payment of the initial licence issue} but will the department want to charge for the cost of again backing the exam set up.??

P11 An advert for precise RF company for their series of magnetic Loop antennas. For those BARG members interested in building and using a LOOP antenna may be worth looking at the specs quoted. Wouldn't suggest buying one as the antennas, the control boxes are something that we could consider constructing our selves. Here is a potential project coming up.

P13 Member spotlight. Paul WA6PY. Born in Poland he started with astronomy and then radio astronomy First licensed at 16yrs as SP5CIC he attended the Warsaw University and gained his MS in Electrical technology and later got his PhD in philosophy and learnt to build all his gear or to convert available Russian and US disposals radios. With brother Michael SP5CJT they assembled some VHF antennas [2m 18foot tall yagis] In 1970 and a move to Sweden allowed his freedom more towards Moonbounce with callsign SM0PYP. Moved to San Diego in 1996 he brought a huge wealth of experience in VHF technology and Moonbounce.

P24 Letter from Members. Covers a range of areas.

P30 Digital Oscilloscope Specifications. Changing over from the analog CRO to a digital one there are a number of things you may wish to review. Storage and memory things not in a conventional CRO [apart from more expensive types not usually found in an amateur shack] Things covered such as: Bandwidth, sampling rate, Memory, Vert channel Characteristics, Triggering, Basic Math functions,



P34 Certificate of Code Proficiency recipients. The ARRL still takes the belief that amateurs should practice and keep alive the art of using Morse code at various speeds. This is still a very commendable overview as morse is still very much alive around the bands and a very easy mode to use as far as equipment and set up is concerned. The ARRL runs a regular broadcast via W1AW on bands between 160 and 2 metres. A broadcast sched is given on the page . More likely available morse broadcasts are done here in Australia at home. Look around 3.700 in thee evenings. There was also a nightly b/c on 3550 for those wanting to increase their proficiency.

W1AW Qualifying Band - August 2024
(All times are in Eastern Daylight Time)

Monday	Tuesday	Wednesday	Thursday	Friday
012 4 PM - 2000Z 10 - 35 WPM	06 4 PM - 2000Z 10 - 35 WPM	07 7 PM - 2000Z 35 - 10 WPM	08 10 PM - 1000Z 10 - 40 WPM	09 9 AM - 1000Z 10 - 35 WPM
		014 7 PM - 2000Z 10 - 40 WPM	015 9 AM - 1000Z 35 - 10 WPM	016 10 PM - 1000Z 10 - 35 WPM
	020 7 PM - 2000Z 10 - 35 WPM	021 10 PM - 1000Z 10 - 40 WPM	022 9 AM - 1000Z 10 - 35 WPM	023 4 PM - 2000Z 10 - 40 WPM
026 10 PM - 1000Z 10 - 40 WPM	027 9 AM - 1000Z 10 - 35 WPM		028 4 PM - 2000Z 35 - 10 WPM	029 7 PM - 2000Z 10 - 35 WPM

P35 Product Review BG2FX FX-4CR Portable Transceiver. Covering 80-6m with a general coverage receiver 3.5-54Mhz and 20Watts output with a cast metal case the uynit is supplied in a padded carry case. Costing US\$500 from manufacturer www.bg2fx.com as the demo unit had early firmware the author used thr free STM32Cube Programmer [see www.st.com]



P40 Review. Xiegu VG4 Four Band HF Vertical antenna. The unt does not require ground radials like so many other antennas. Taking under one hour to erect with a friend it has a set of elevated ground Radials and a balun box with a set of traps [3] towards the top. Costing US\$300 from www.cq.exiegu.com



P43 LNC Radio Chelegance MC-750 HF 40-6 Metre antenna. For portable use it comes in a soft carry zippered bag and can handle 100W and the lot weighs less than 1.9Kg. Using a telescopic mast to 17metres and four ground wire radials of 3.5m each. More from Chelegance JNCRadio , www.chelegance.com

P47 Ask Dave looks at the antennas and in particular a long wire and a loop antenna .

P49 Tech Correspondence. PVC and CPVC sizes; Revisit the Antenna Tuner trick. The differences between "Piping and Tubing" including copper tube. The pipe being discussed is the white coloured one and not the grey electrical conduit. With the Antenna trick [see QST Mar 2016] they discuss the replacement of a Series tuned circuit with a Parallel tuned one.



P50 IOTA challenge from Yanuca Island, Fiji. OC-189 Apr 2023 -8 May 208 May 3Y2LYC from the local school house. Producing some 5,122 contacts with 3,338 unique stations covering 80 DXCC stations.

P54 HF/VHF/UHF from a Sport Boat. How to fit out the family boat for amateur radio use an IC 7100 and running cables. Makes for an interesting read.

P57 An all band EmComm Go kit. Also useful for the field day or mountain topper kit include: Yaesu FT 847. 100Watt all band/mode. LDG Electronics YT 100. 100W antenna tuning unit with a 10:1 impedance range. Tigertronics Signalink USB radio interface. USB CAT cable for PC control of the FT857D. Small footprint Windows 10 lap/tablet to run digital modems and Winlink Express software. Also small SINE wave inv for lap top batteries extension. 12V fan inside case for ventilation. 16 Ah 13V LiFePO4 battery pack with Bluetooth management system. Antennas and cables carry



in a second box. This would be an important article to read for any amateur interested in mountain topping, Field day activities as well as Emergency communications.

- P60 ARRL National Convention at 2024 Hamvention.
- P64 Happenings. Solar activity affecting the Ionosphere
- P68 Cuban Club happenings.
- P70 Public service. In depth look at the NTS.
- P81 Bigger clubs Supporting less CTIVE Clubs.
- P85 How's DX.? A5 Bhutan the Wrap up
- P87 Above 50MHz. Carrington Class Sunspots create extreme Geomagnetic storm. Sunspot 3668/3554 of May rival the 1859 Carrington sunspot. Named after the observer Richard Carrington an English Astronomer.
- P93 Looking Back, Sept 1974.
- P97 Celebrating our Legacy. Mentorship, Old rigs and Old boys,
- P98. Classic Radio. Hallicrafters HT-32 family and the HT-37.
- P100 100, 59, and 25 years ago,
- P126QST index of Advertisers.



AND THAT'S YOUR BLOOMING LOT.

See you all next month. 73 Craig VK3KG.

Silicon Chip September 2024 Review

- P2 Editorial: Intel, AMD and the CPU industry.
- P12 Product Showcase. PIC64 from Microchip, designed for spaceflight computing in the company's first wave of 64 bit controllers.
- P16 Generating Power by Unusual Means. David VK3DSM. Looks at energy gathering other than the usual large scale coal, wind, nuclear, water. The process is called "energy harvesting". These devices, usually very small, gather energy from their surroundings such as electric/magnetic fields, heat, light or mechanical movement of the device to be powered. Solar cells on watches to miniature generators responding to surrounding movement. Even gatherers on the silicon chip IC level.
- P29 Review; Exteek C28 Bluetooth 5.0 Audio Transmitter/Receiver. Powered by its own battery, this device can power a small speaker or headphones. Useful for transmitting sound from a non-Bluetooth device to your Bluetooth enabled phones or amplifiers.
- P32 Compact OLED Clock/Timer. Using an OLED 128 x 64 I2C display and PIC controller and Raspberry Pi Pico W, it can show time zones, automatic daylight saving, alarms, countdown timer, stopwatch, rechargeable battery, one second resolution, crystal time keeping and a WiFi time source.
- P45 Circuit Notebook. Dashcam power control, Electrically-controlled ball maze game,
- P48 Mains Earthing Systems. Defines what an earthing system is and what it should do. Looks at the types of earthing circuits and when and where they are used.



P52 USB Mixed-Signal Logic Analyser. Uses a Raspberry Pi Micro, it interfaces with PulseView software, provides a monitoring interface for 1v8, 3v3, and 5V logic, and analog input signals. 240MHz digital sampling rate and 2.4MHz analog sampling rate.



P66 Mini Project #010 IR Helper. A device to simply emulate your IR remote and an IR receiver, USB powered and based on a Leonardo Tiny Board.

P68 Mini Project #011 No-IC Colour Shifter. Using three transistors this circuit makes a RGB LED shift colours in a sequence.

P71 Electronics Manufacturing in Australia, Part 2. Looks at the 1930's and after of the domestic electronics available from the Aussie manufacturer. Pointing out the degree of local research and design at the time. The removal of tariffs and the loss of our local manufacturing capability.

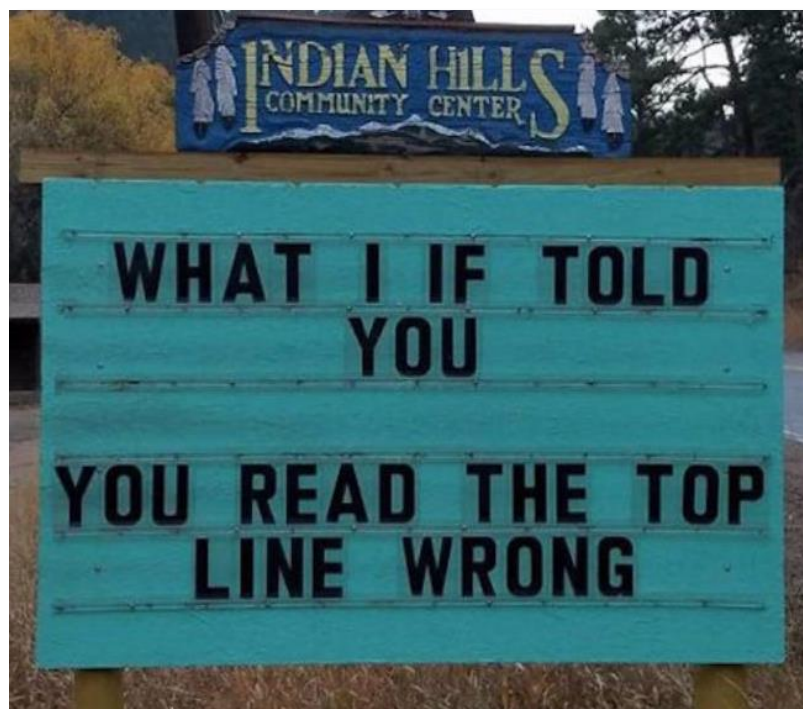


P78 Discrete Ideal Bridge Rectifier. Design and description of a bridge rectifier using MOSFETs and some control circuitry.

P86 Electric & Bass Guitar Pickguards. Explains how electric guitar pickups work and the types available and the various output circuits and components required to build your own.

P96 Serviceman's Log. Some home maintenance, Crosley vintage radio, PA speakers, Washing machine solenoid and Seismograph coil repair.

P102 Vintage Radio, Stromberg-Carlson "Air Hostess" Model 4A19. A low production cost, four valve radio used mainly as the kitchen radio and some background into the company in Australia.



BARG Newsletter September 2024

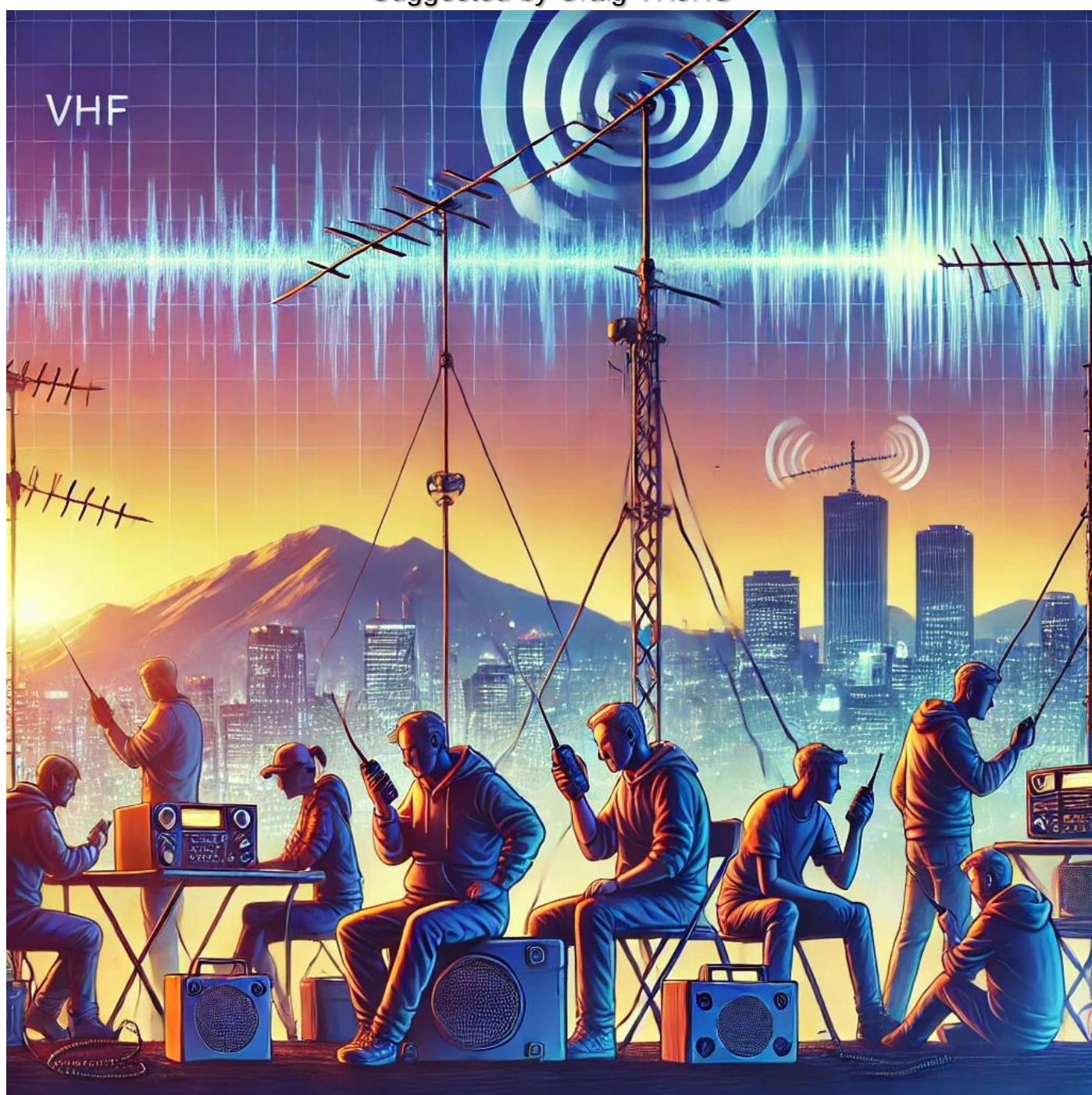
SUPPLEMENT

Missing from the September Issue of the newsletter.

Published as it contains recent VHF/UHF activity.

Apologies to Ian VK3AXH as this article was posted to me earlier in the month for publication.

Suggested by Craig VK3KG



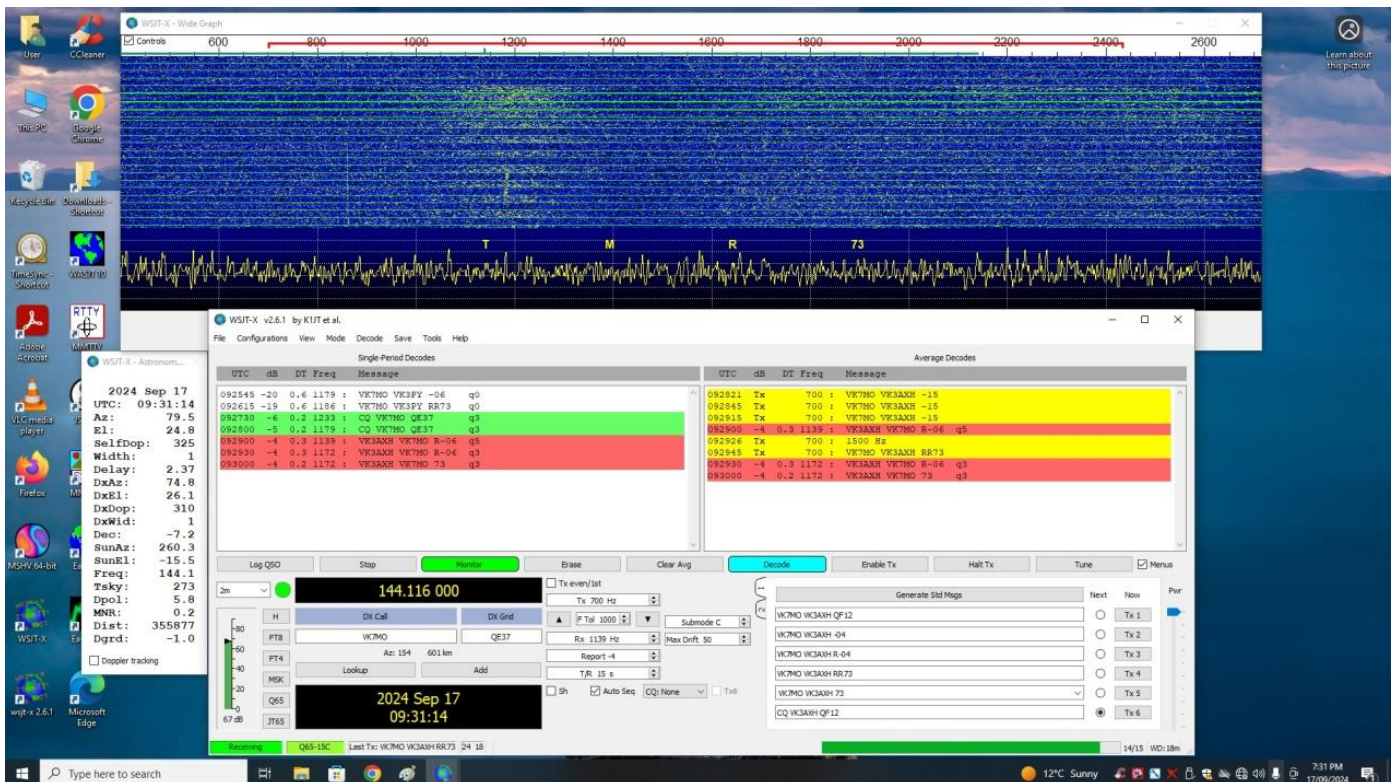
VHF and Above for September 2024

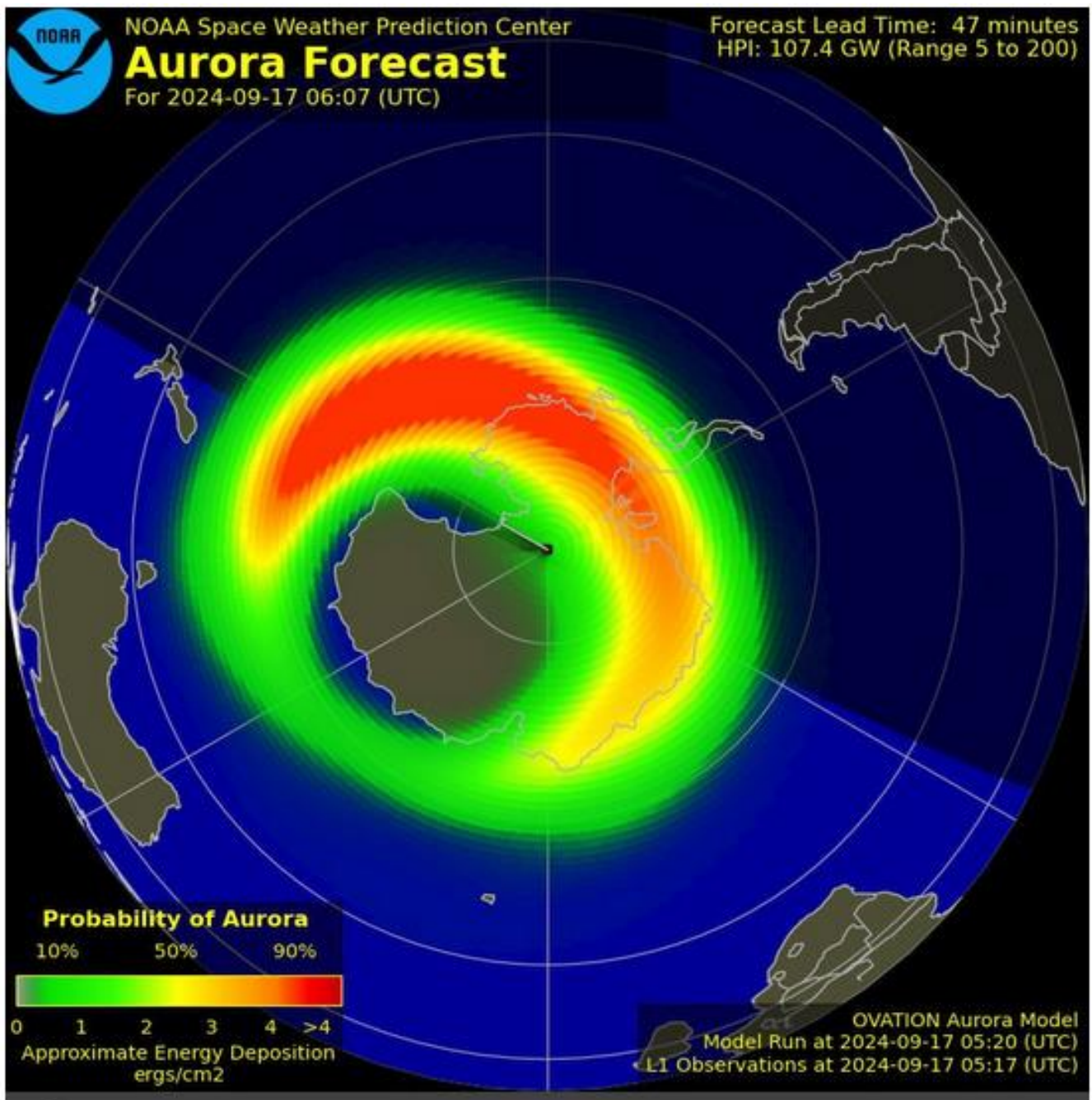
This column is put together for a couple of reasons. One is to let members know there is activity occurring other than just FM repeaters and the other is to attempt to encourage amateurs who haven't yet undertaken the challenges of other forms of communication on the higher bands to take part. This can be done from home or portable operation.

It's all about the challenges involved to communicate utilising different modes but generally in a weak signal environment. If you are interested, then talk to those that are involved in this aspect of the hobby for further information. This leads me into some interesting propagation that has occurred over the past few days.

There has been another Aurora taking place in the South which has led to those interested in making contacts on both the 6m and 2m bands. I'm aware of several VK3 and VK7 stations that made contact with Rex VK7MO using digital mode QF65C with great success. Some of those were VK3MAP, VK3ZAZ, VK3AFW, VK3PY and VK3AXH. I've no doubt there were others as well. Below is a couple of images that relate to this mode of communication involving VK7MO and others utilising this mode.

Due to the spreading of the emission voice communication is not possible ie it would be unreadable.





Cheers.Ian VK3AXH.